

X

Book II

Watches, Miss. Nov  
Vicksburg,  
Helena, Ark.  
Forest City

Notes



If this book falls  
into your hands, notify

B. Shimek  
Iowa City  
Iowa.

who will reward  
you for its return.

Dec. 29, 1906

Reached Hatchery sometime  
in the night (about 2 AM)  
deft on the boat (Petry Ann)  
went up town at 7 AM.  
Took the train for Vicksburg  
at 8:30 AM.

On way out from Hatchery  
the Gays. I saw me, in the  
creek, along creek, found (Gays)  
reached (Hatchery) the first station  
(Foster)

Before the next station in the  
the surface water is mostly red  
& contains brown appearance.  
At a few points in the  
edges.

Selma

Beyond this station  
see (from the train) the



appears to be loess, excepting  
 is the red type (doubtful  
 loess) found at Harrison  
 etc., all on S.

Everywhere at surface is reddish,  
 At the W. station <sup>(Stanton)</sup> on one

little bank 2 or 3 ft of yellow  
 material appears, — like loess, but  
 containing cotton-wood, all red.

At Cambridge all red, except  
 1 bank, & it appeared as if a  
 possible clay here. The

main deposit cut — at top, —  
 just out of station.

Another deep cut beyond, &  
 two others show probably  
 8-10 ft. of loess. all on  
 highest ridges.

Soon after we crossed a rather

Coles creek,  
 broad shallow stream, with  
 many sand bars. Cuts beyond  
 this also show fossils in a  
 reddish loess. A few large Helices  
 could be plainly seen. This is  
 just beyond the stream.

All other cuts to and beyond  
 Stamford show red.

At Fayette red stuff, but  
 one cut shows about a foot  
 of yellow material at top <sup>(at road 12.5)</sup>  
 Returned to Cambridge, but

train was 2 hrs. late, & my  
 stay was short, as I left  
 at 2:30 P.M. Walked down the

track toward Coles cr, a shallow  
 stream with broad valley & many  
 sand bars. Found a young Kentuckian  
 (he followed me on horse back "because  
 it was such a treat to see a white man")

He & his family are the only white  
people in a radius of 1/4 miles.  
~~mountain cuts E. from~~ Canyonbury,  
1<sup>st</sup> cut E. of Cannonbury -

near depot, is about 15 ft  
deep & shows loam, -  
lower 6-8 ft quite  
fossiliferous, upper 6-8 ft  
reddish & crumbly to crumbly,  
with samples of fossils.

Over 100 ft. thick.

The loam is quite compact.

Across the creek E., only  
about 6 telegraph poles, basin

Cut 2 E. of Cannonbury.

This is new clench & is about  
12-15 ft. deep. Mostly brown,  
but at W. end a compact  
reddish (quite reddish) loam  
appears distinctly at least  
with fossils at base.

Have place a little short layer of  
broken shells thin - horizon 10 ft

5

see skulls & sample.

About 2 telegraph poles  
beyond 2<sup>nd</sup> cut is  
Cut 3 E. of Cannonbury.

This cut begins just beyond  
Wayne road & is about 200  
ft long & about 25 ft deep.  
Its uppermost layer - 3-5 ft  
is reddish & is crumbly.

Then comes about 10 or 12  
ft of yellow compact loam,  
below that a very distinct  
red layer, which contains  
gravel in it. There  
are fossils in this loam.

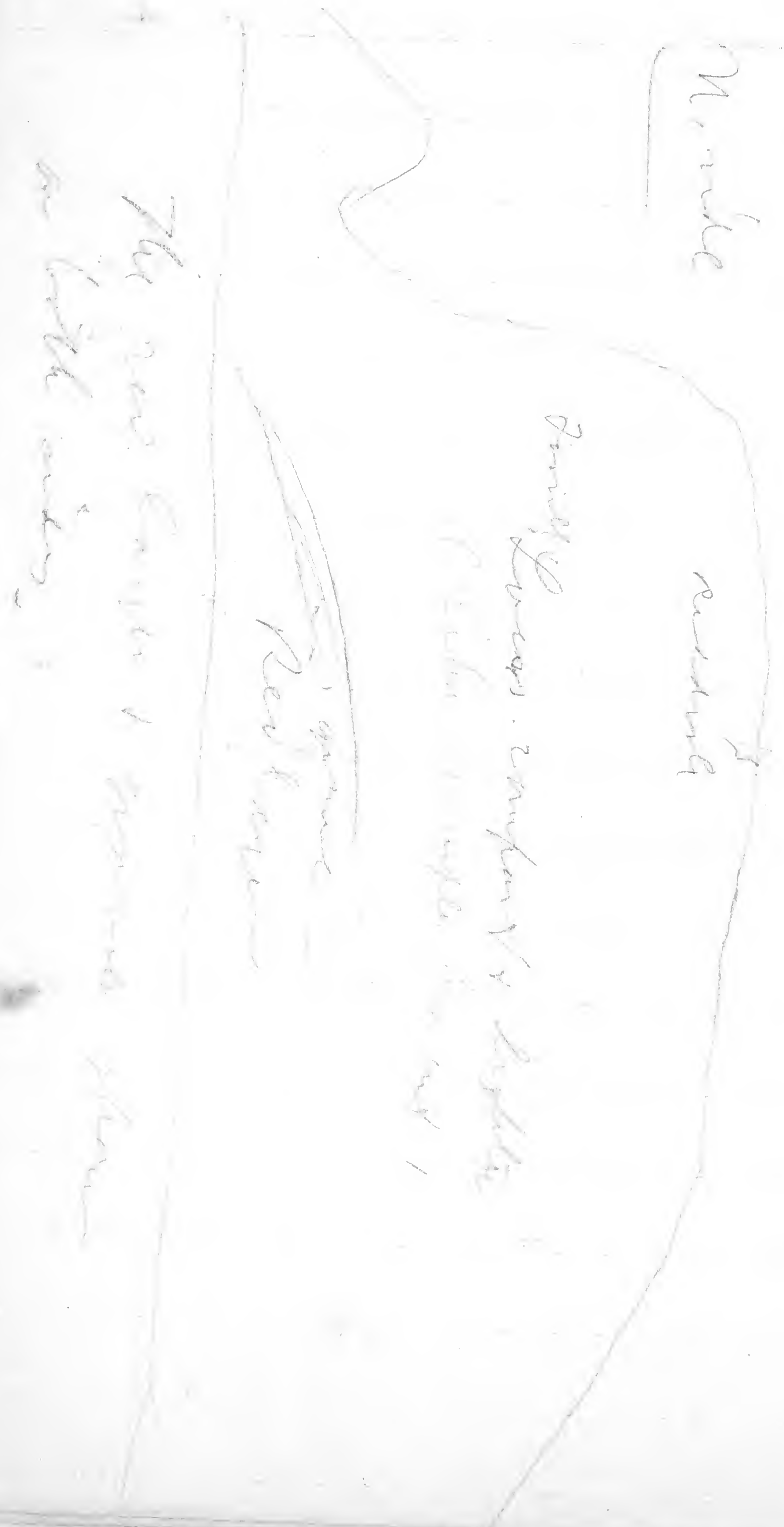


Cut 4 is only a short distance  
 (150 ft) farther E. It  
 is rather light loam, with  
 fossils quite abundant  
 in lower half. 12 ft deep -  
 all the shells in all  
 these cuts are fossil.

Cut 5 is about 300 ft farther  
 on, & is largely a yellowish  
 fossiliferous loam. See shells

Cut 6 - A rather hard loam, rather  
 yellow, with a few fossils  
 A short cut 150 ft  
 from cut 5 & 8 ft. deep.

11  
 12





Beyond cut 6 are 3 or 4  
small cuts before creek  
is reached. I looked at  
2 of them. They were  
essentially like cut 6. There  
are fragments of shells in all.

The geologist here at Cambridge  
said that below the loess in  
cut 1 there is a yellow sandy  
layer. I saw this. There is  
a deep bed of clay, which is  
quite a sandstone.

He also says, that at Cambridge  
cut, the first big cut is of  
Cambridge clay, which is in  
bright divide. There is  
the white layer, very prominent  
than a red layer, and no yellow (loess).

From Train, after crossing  
wide bottoms of Cole creek  
(which is really a small river, about  
 $\frac{1}{2}$  mile from creek junction there is  
a deep cut (15-16 ft), which  
clearly shows fossiliferous loess, &  
looks almost exactly like

cut 1. Beyond this, another  
half mile, is another rather  
deep cut which shows clear  
loess, & that is the last one.

There may have been one possible  
bit of loess beyond Stamps,  
but gravel & red stuff  
show everywhere.

Drizzly rain P.M.

On way up from Hamilton, especially  
toward Vicksburg, saw loess  
occasionally.



Reached Vicksburg at 7 PM (2 hours late) & put up at the Piazza Hotel, on Washington St., near Veto.  
Spent the evening in re-packing, etc.

Dec. 30, 1906 - Sunday.

To my great regret found it raining hard in the morning. Worked out timetables, & about 11 AM. went out to cuts 1 & 2. Came back for dinner, and then followed out route indicated by following notes:

Turned out to be a very pleasant day.

Cut 1 - Vicksburg is on S. side Veto St. & on E. of Washington (on flat).

5 or 6 ft. of yellow loess (see sample) exposed, & at E. end capped by red loess (see sample).

The loess is col. gray, with few nodules & scattered fossils.

Cut 2 - is a short cut in E. side of alley, & is like 1.

Cut 3 is a remnant of full section 32 ft. exposed.

The cuts 1 & 2, & indeed all these are part of one cut.

Cut 4 - is in E. & W. side of street on which stand pipe line, & is near the river. The bank is at least 35 ft. high & consists of all fine yellow loess.

Domestication Cut 4 extends across



3 sides of a block, in part.  
On the side nearest to river  
the lower redder is placed,  
and yellow is above it, &  
there is no sharp line between  
them. There is a distinct  
darker layer on top, with  
a few small pebbles.  
The top is fairly level, & there is  
no doubt of it. The  
shells, - they are identical.

Top of cut 7 reads 500 ft  
again, same as 1 & 5

Cut 5 is about 5 ft. lower than  
top of cut 1, - its top about on a level.  
It has just been plowed, &  
fine yellow loam extends  
here up to soil.  
It is quite fossiliferous,  
has a few nodules, & is  
like the yellow loam of  
cuts 1, 2 & 3.

✓ Plot m. Residence with magazines  
too close to house.

✓ n. Looking N. on top of hill - with  
end of church etc.

✓ 17 - cut 7. Looking up hill.

✓ 18 - " 7. Upper part - pickering

✓ 5 - Looking S.E. from top of cut 7.

✓ 6 - Yuccas.

✓ 80 B. Yuccas in front

Looking across river  
34



Cut 6 shows about 10 or  
12 ft of a curious, much  
whitish fossiliferous loam,  
with a few nodules of  
its upper part yellow  
with bluish red bands.

See samples.

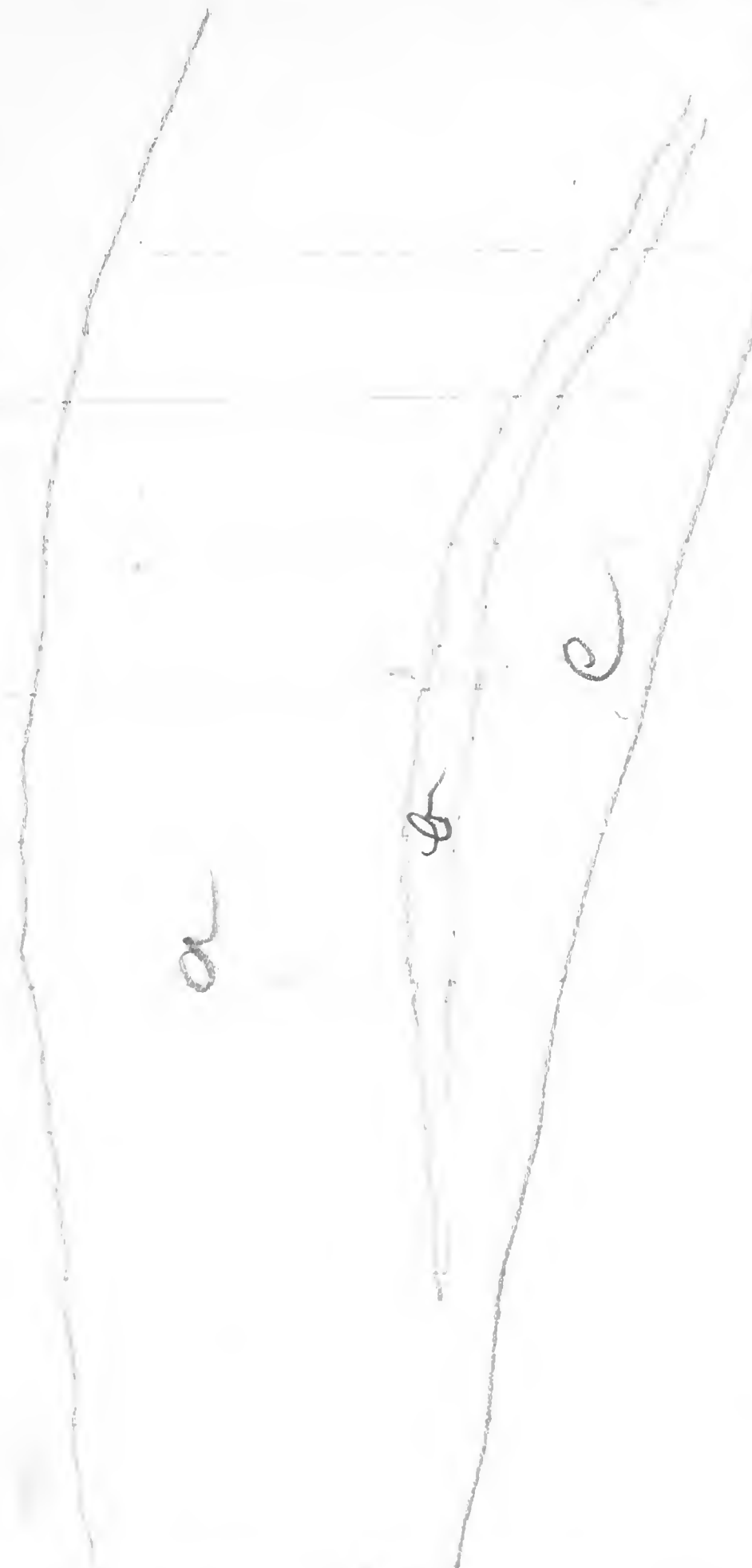
Top of cut 6 was about 445  
Rise at base about 820.

Cut 7 - a is a reddish  
loam, 15-20 ft deep.  
It contains fossils, especially  
the larger ones.

b. is 6-12 in, a deeper  
red loam, showing darker  
on old surface.

c. is whitish loam,  
good compact

cut 7



Lower down, toward foot of hill, the  
loam is chiefly whitish & heavier, like  
in cut 6. <sup>There was a little variation</sup> shells up the hill, rather than  
from one stratum to another. Lower shells upward.

Cut 8 is a low cut at top  
of ridge, near corner

containing

low loam, very white  
at the top, above. In the

The red shade, down a little  
more compact, reddish loam



16  
and the low forms. On very front of  
hill, as <sup>compared</sup> butting, no fossils, & very old  
top of hill with <sup>crinoidal</sup> ~~Conifer~~  
in the middle is 505.

All these maps to cuts  
1+3 are nearly same  
height.

The Conifer earthworks were  
like this:

Top view



evidently thrown out of a which  
is a depression. The part X rise  
very little, but a is a depression.  
The mound is called the  
"Devil's backbone" by the negroes.  
Several metallic tablets, set on  
iron or steel posts, communicate

17  
The fact that certain small  
detachments, - all ~~some~~  
heavy artillery, were stationed  
on these hills between the earthworks  
and Vicksburg. In all cases they  
were concealed on the sides, - not out  
on prominent points.

On the return I found barometer  
reading 475 ft. at cuts 1+5  
I have set it at 500 ft. &  
all the readings ~~readings~~ <sup>readings</sup> were  
within that range.

The altitude of Hotel Piazza  
(walk-in point) above the flat  
(tracks of Y. & M. V. RR at  
depot is 125 ft., & cut 1,  
upper end, is 30 ft. higher.  
Hence my 500 ft. point is  
155 ft. above tracks of Y. & M. V.



This makes the hills,  
generally, run from  
150 to 160 ft. above the  
flat, & this is ~~15~~ 20  
ft. above the river, -  
now at rather high  
water.

I checked the readings 3  
times on a part, twice  
on the remainder, and  
they agreed very well.  
Went to depot &  
waited for the 10:40 P.M.  
train.

I am thankful that  
I am leaving this  
nest of graft and  
filth. I never saw  
rough, muddier, poorer

streets in a town. They are  
a reproach to any  
community, and mark the  
people of Vicksburg as a  
low set.

There are a few rather  
nice residences on Cherry  
str, but nothing like  
Katchey. Katchey is  
high-priced, but also  
high grade. Vicksburg  
is high-priced and low-  
grade. Saloons are quite  
numerous, & evidently well-  
patronized. The men of  
Vicksburg do not begin to  
show the "blood" of the  
Katchey men. There is  
simply no comparison between



The two places.

At a Church on the corner  
 Street 1 block W. of  
 Cherry St, & northward,  
 I saw an old stone  
 monument erected to  
 Dr. — Morley? who, as  
 the inscription says, was  
 murdered by guerrillas  
 because he fought  
 vice, away back in  
 the thirties.

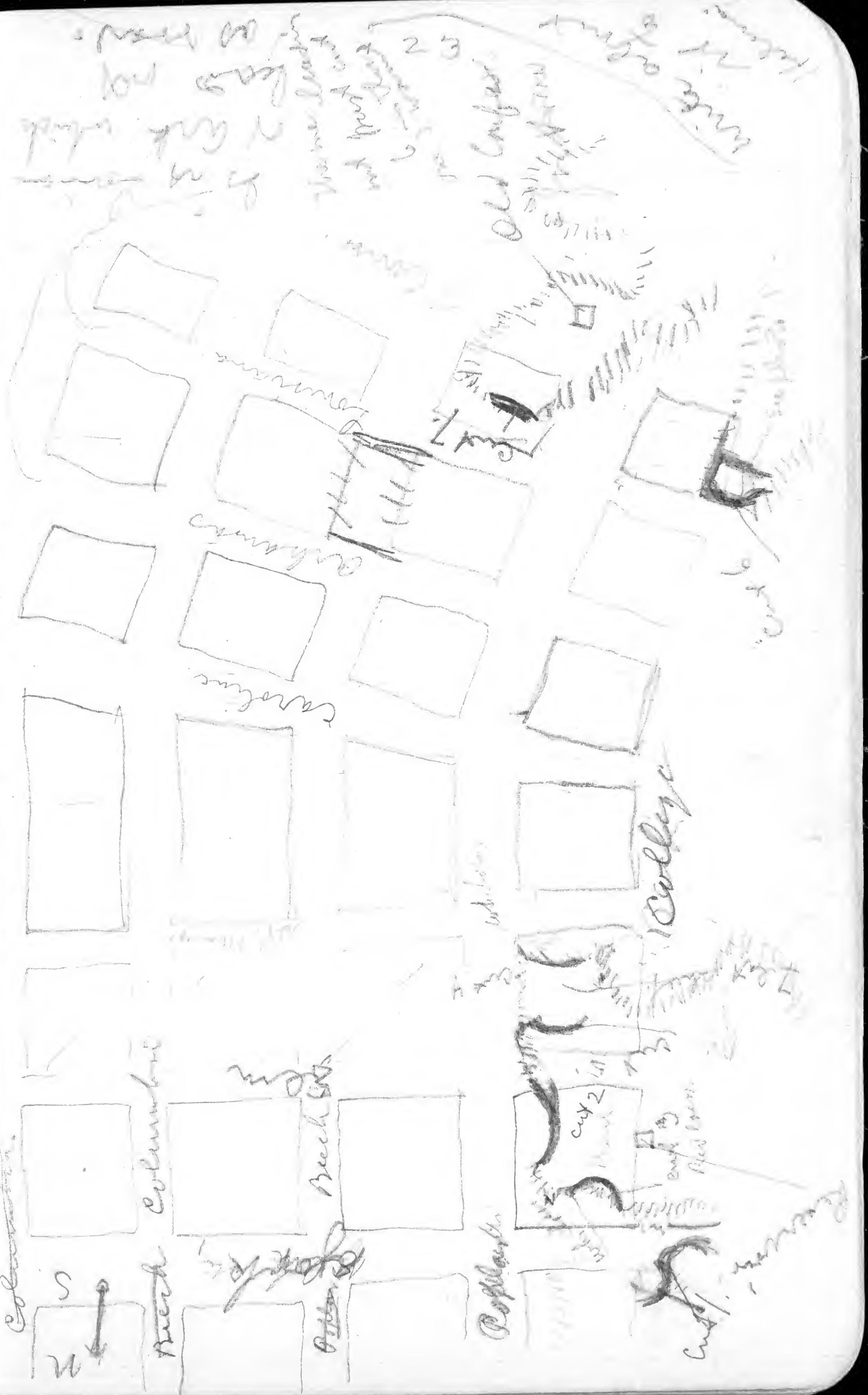
Left at 10<sup>50</sup> PM.

Dec. 31, 1906 Monday.

Awakened near Lulu, and  
 reached Lulu at about 5<sup>15</sup>  
 am. Waited for Helena  
 train until 7<sup>30</sup> am.  
 The line to Helena runs  
 through flat bottomland  
 much of which is in cotton  
 Considerable timber also.  
 The whole train was carried  
 across the Mississippi on a  
 ferry, and we reached  
 Helena at 8<sup>30</sup> am.  
 Put up at New Pacific Hotel, &  
 worked over Crowley's Process  
 after fixing map, etc.  
 Commenced at east of the river  
 cor. of College and York St.



Cut 1 - To base - 63 ft.  
 from bottom - cut of  
 York Street. To top of  
 ridge 100 ft from York St.  
 This stone is a coarse sandstone  
 even in the soft part, gray  
 with some brown spots  
 in it. It shows stratification  
 with columns, & breaks like  
 even. Portions are white  
 & other parts yellow.  
 The yellow parts often have  
 blue root tubes.  
 Iron scales & small nodules  
 are quite abundant.  
 Upward the layers pass  
 into the red layer, which  
 then forms the top.





dressing. In some places this  
is rather about 4 ft again  
4 or 5 ft of yellow loam  
form a transition.

It is fossiliferous from top  
to bottom. The fossils  
are very fragile.

The red layer is 2 or 3 ft  
thick on top, & in places.

On lower slopes it is  
sometimes thicker - 4 or 5 ft.

It has no fossils etc.

In the lower part of loam  
there are white bands &  
then yellow bands.

On the slope extending  
about to College St.,

The white loam is exposed  
in a line. It shows

here large *Helices* like *H. perforata*

& *Healobolus*, - badly broken.

The ~~loam~~ evidently ~~contains~~  
the ~~loam~~.

At junction of white  
and red layers the form  
often in numerous parallel  
lines, yellow sections.

See fossils and samples taken  
as follows:

- 1 - Wooden & iron tubes cut 1.
- 2 - White loam about 4 ft below  
top of bank.
- 3 - White loam near top.
- 4 - Red top layer.
- 5 - Shells.

Above the red loam shows on top, several  
ft thick. Line not sharp.



Cut 2 is a splendid one.  
There is a distinct line gray  
loam & an upper red loam.  
The latter "singing" in thickness.

The red loam shows in a cutting  
about 10 ft. deep. It is pretty  
fossiliferous very abundant here.  
I could not find the red loam  
on both white & red loam.  
The gray loam cut out in a trench in  
the upper part of the red loam. The  
loam is a coarse gray bluish loam,  
where the small shells are  
more abundant.

I notice that in the red loam  
Muss. individuals are much  
more common. Other in the  
shells were the same, and

they seem to run right up  
through. I took a set each  
from the white loam & the  
the red loam, and also picked  
up a mixed set from the red.  
(Look at the inside of shells & the  
which they came from).

There are also some shells in  
both loams.

The line of demarcation between  
the red & white is not sharp.  
There is a gradual transition of  
transition loam becoming less  
red downward, and shells run  
right up through.







cut 2 in profile

Hamilton Green

shell

Photo by  
the post  
in center

shell

Red 1/2 in  
x 1/2 in

white heavy  
bedding

7 in

The red horizon is a red bed  
rays are thin white shells  
crust out. Part (as a white rock)

My sample of red  
is about 6 ft above  
base here

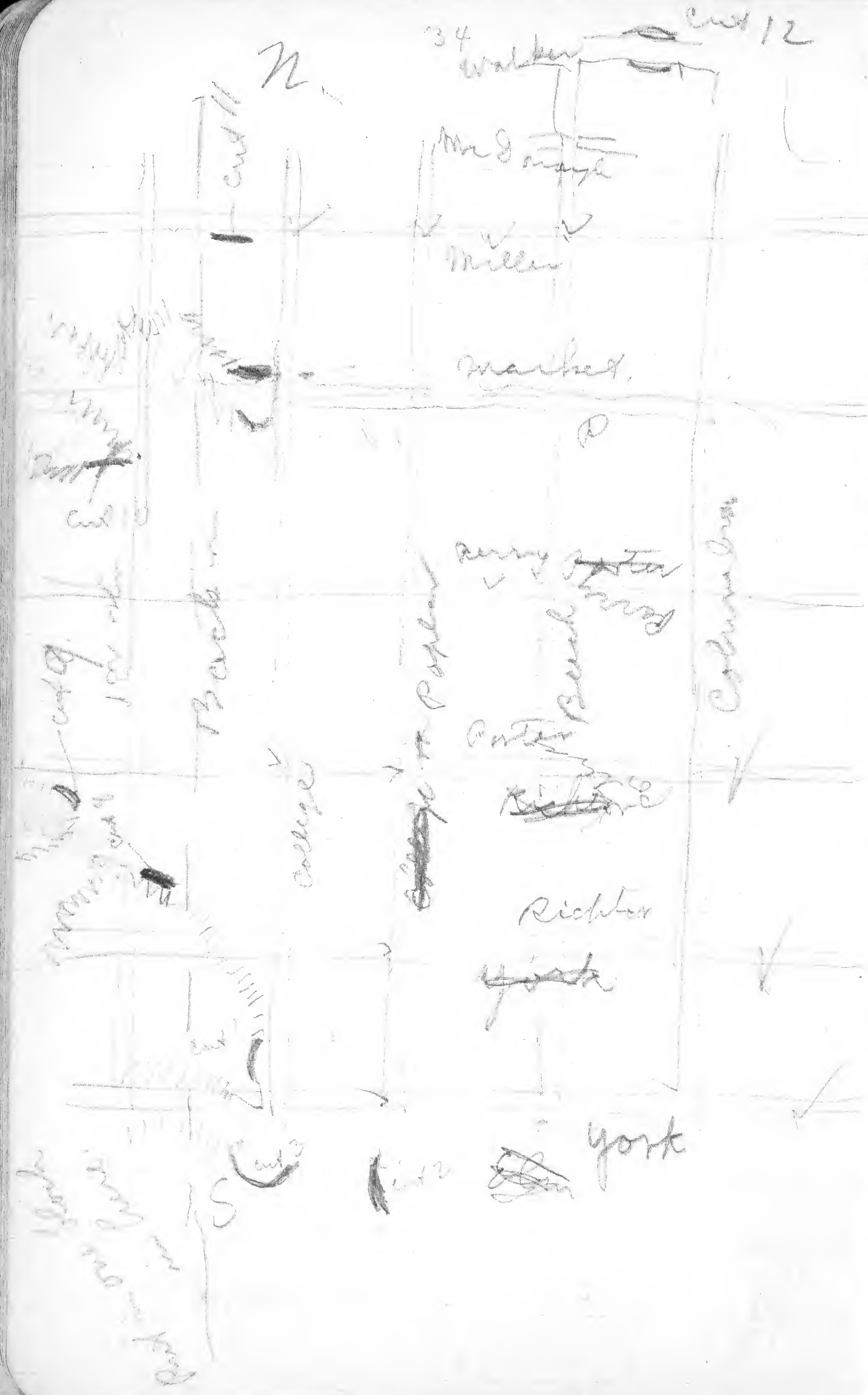
Eden

A more or less horizontal lamina  
is shown in the red bed.









35

Cut 4

a 12 ft.

b

c

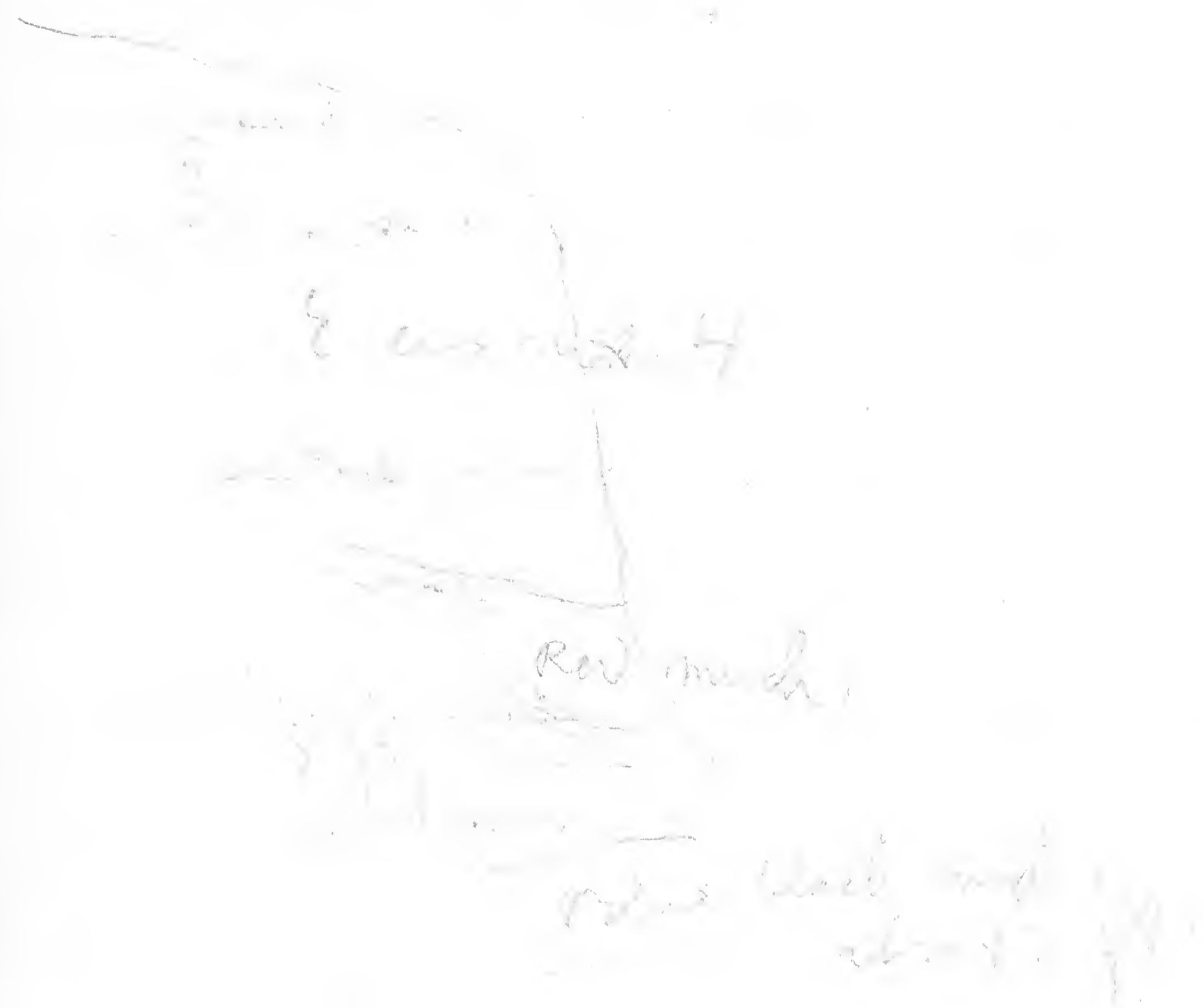
see the side

a - is a white loam, full of fossils, 7 with thin red tubes. It is really a continuation of the white loam of cut 2. Shells found broken. see sample

b - is a chocolate clay a red band - above it a lighter (a) - is a layer of greenish mud with thin nodules. This part is evidently not long.



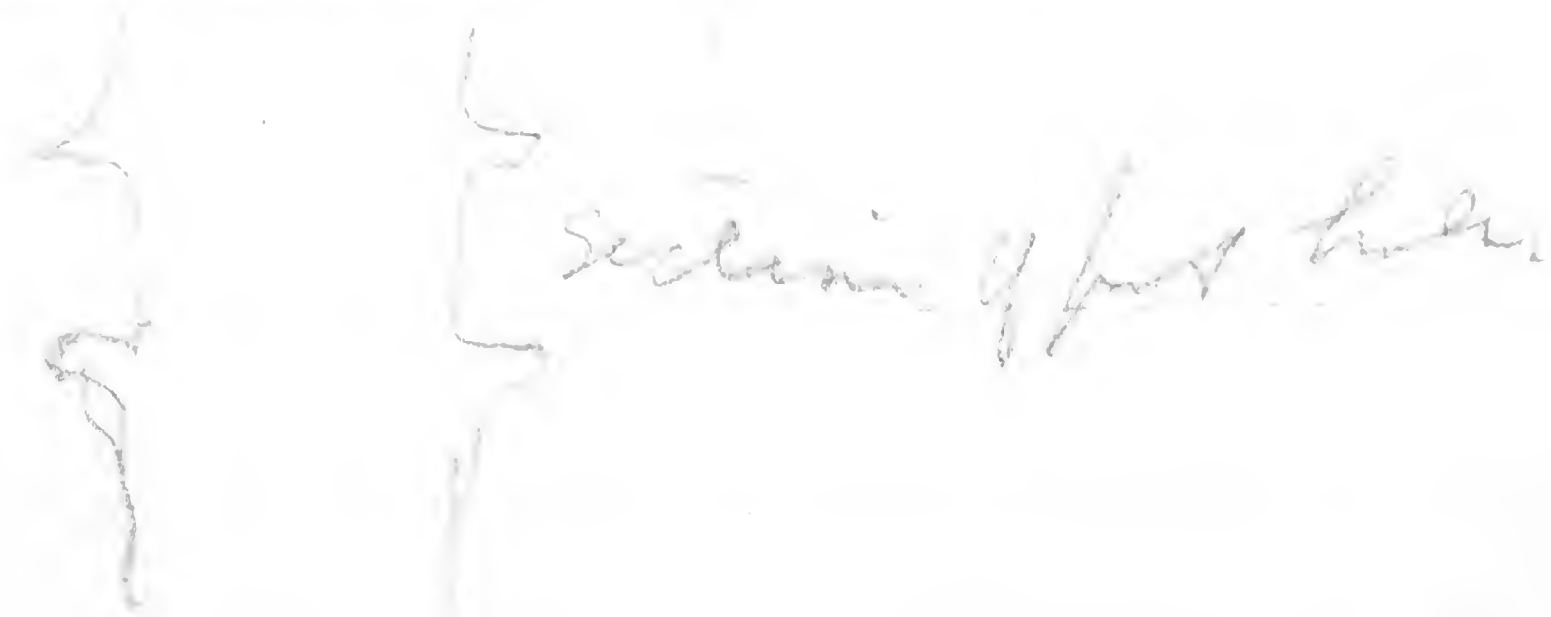
Near cut 4 down from  
there is red stuff at  
base of some & some of  
it clearly over loess, but  
it is loose (loose)  
& some small stones



Between cuts 4 & 5 is a  
flat shelf, a result of  
excavation. This is 165 ft. (see p. 24)

Exp. 5' Shows white loess  
below, becoming more & more  
rich in fossils, some very  
of red loess with fossils  
on top, - just a cm. of cut 2.  
Forms a layer of shells (brake)  
nearly horizontal, in lower  
part of wh. loess a large  
mudstone at left end lay  
in same layer.

Pot holes are everywhere  
common in the loess.  
Three pot holes often have  
horizontal strata





The chocolate layer shows  
just at floor of  
shelf between D4 + 5.

It evidently runs  
under all the bed.

The shell layer is in part  
of wh. layer, quite within  
fossils.

Cut 6 is mucky loam -  
yellowish, a sort of intermediate  
condition, but evidently  
overlying the wh. loam.

See fossils & sample.

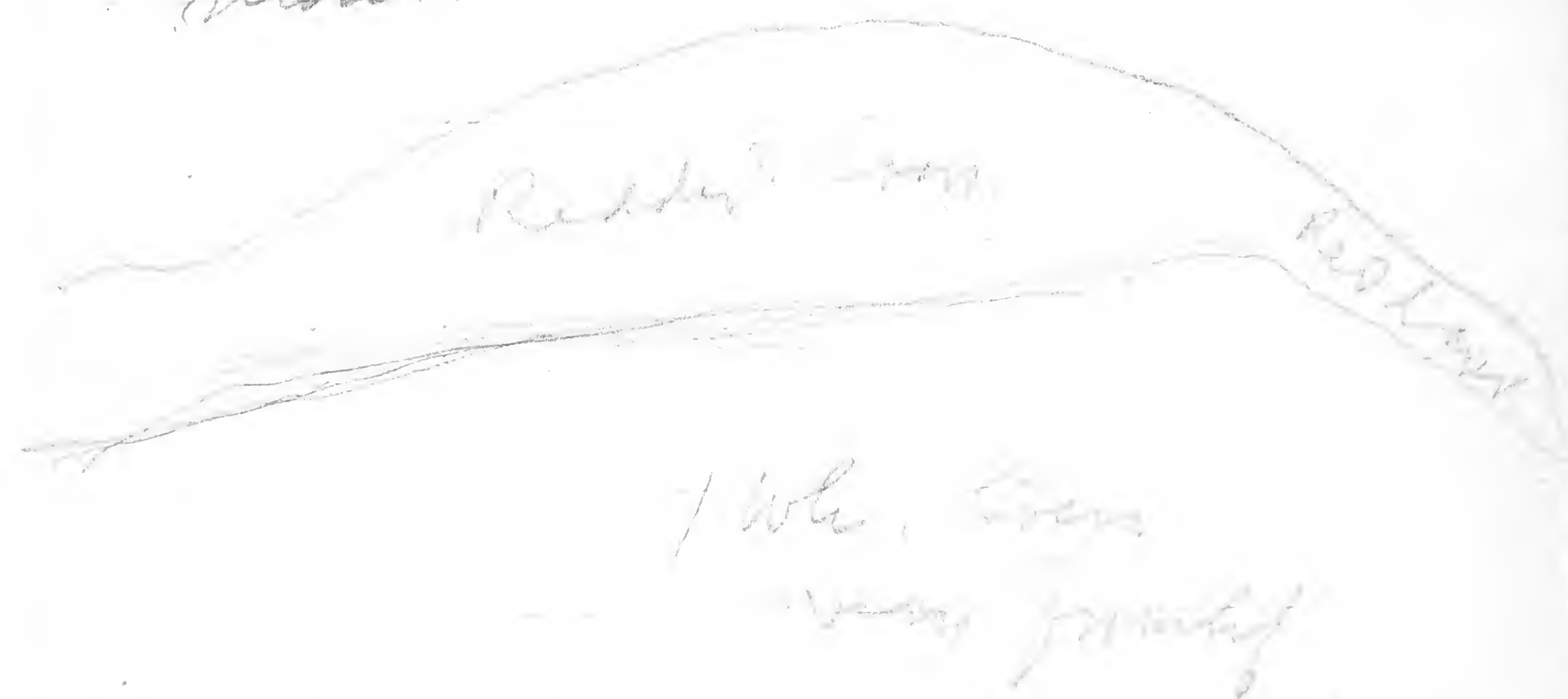
This loam rests on about  
6-8 ft. (exposed) of  
red muck, as in

cut 4. Not loam.

Up on top there is a

redder loam (3-6 ft.) visible  
from below. Cut is about  
30 ft. high.

The loam here is very mucky  
& in places has many  
nodules. Some parts of  
it are quite white.  
On the E. side this cut  
shows:





Cut 7- Bluff 55 ft high

On top a little sand  
dune. At base  
chromate layer shows  
but most of base obscured  
by talus.

Major part of bluff  
white, crumbly, very  
friable, with  
small nodules.

See fossils

Base of cut 7 is 45  
ft higher than cut 3

of cut 7

Top of ridge cut 7 is higher  
than cut 2, 2 above cut 4

cut 6. are about  
on a level

### Return

Base of cut 6 is 135 ft higher  
compared to cut 7.

Base of cut 4 is 40 ft  
lower than base of cut 6.  
Shelf between 4 & 5 is 20 ft  
above base of cut 4.

Shelf base of cut 3 about on  
level with base of cut 5. Shelf  
level shows shelf is about  
about on a level (down) with

Base of cut 3.  
York Poplar 50 ft higher  
than shelf.



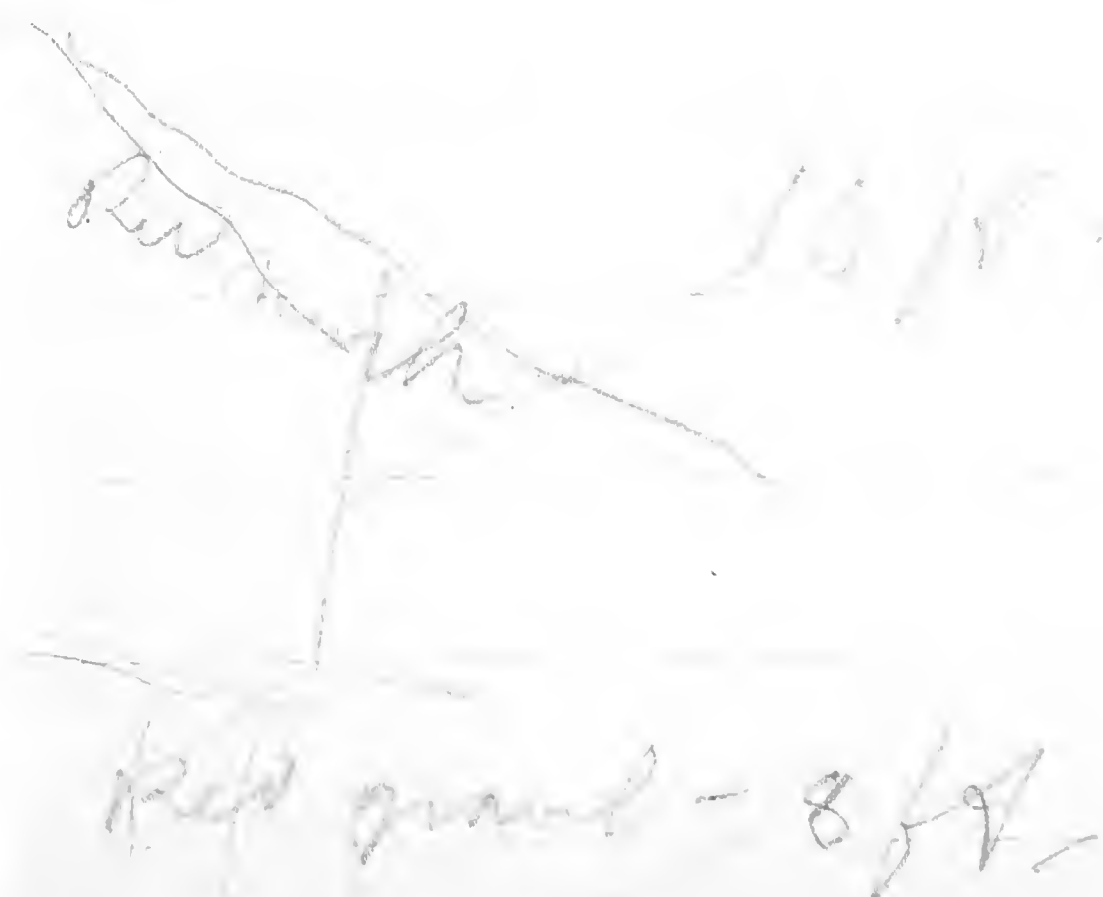
Cut 8. shows white loam  
to top in center & top  
on side.

Red much below. & its lowest  
part shows red gravel  
the loam is about  $\frac{1}{3}$  to  $\frac{1}{2}$  ft.  
probably 15 ft.

Shells same as before,  
mostly broken



It was getting late &  
threatening rain (which  
came later & got me wet)  
I had to make remaining  
operations in a hurry,  
but I think carefully.





cut 9



- a - shales down 2 ft  
 b - wh. loam 25-30 ft  
 c - sandstone layer  
 d - red sand  
 e - gravelly stuff



The loam is white, chiefly  
 & mucky, with nodules &  
 broken shells.  
 In lower redder part I  
 found a shell partly embedded.  
 It was here quite rocky  
 almost.



Cut 10 is part way  
up slope &  
is yellowish loess  
(or white?) with comparatively  
few shells, some  
lime nodules?

Cut 11 is pretty well  
up, & is blue  
loess, with very  
few fossils.

There is again a  
redder top layer

Cut 11

Redden

wh. loess

Cut 12 shows  
wh. loess & some  
shells. The upper  
part of cut is white  
loess with a good many  
shells. I got a few &  
a sample of clay. But  
it was too late, and  
raining, and I could  
not see well.

On E. side of street the  
upper redder layer seems  
to be present.

There is here a thin  
stratum micaceous.  
The hard muchy red layer  
(below running into gravel,  
as in cuts 9 & 10) which

occasionally grades up  
into loamy stuff, & usually  
there is a gradual transition  
from this to the loess  
above. The loess  
in its lower part is  
white, sometimes tending  
yellow. This part  
is crumbly, wet, and  
usually has a large number of  
small broken bones,  
also some thin nodules,  
& where eye colored, with  
blue rock tubes.  
Above this, usually gradually  
changing, rarely sharp, is  
a redder loess, in many  
places thin & even, sometimes  
as in unit 2, with many fossils,  
better preserved. It is further  
nodules, & stands vertically more

firmly. In <sup>49</sup> lowest places, near base of hills,  
this seems to become coarser, & has more  
bones.

Jan. 2 - Wed.

Left Helena at 6<sup>35</sup> am.

Raining all morning.

Left on St. Louis Iron Mt. & Co.

The R.R. runs around the  
end of Crow-leys Ridge.

It is near the base of  
bluffs which drop quite  
abruptly to a broad  
plain.

It is a series of  
rounded broken ends  
of ridges, mostly timbered.  
The hills are rather low  
on west side.

Beyond the 2<sup>nd</sup> station &  
almost to Third, the  
hills run back from  
R.R., and are low, rounded



Slopes,  
 The red top dressing  
 shows plainly in  
 low cuts of "Foot-hills".  
 The RR again leaves  
 the low hills, & is  
 Laton runs over  
 flat plain, a  
 large part of it  
 low, flooded timber.  
 Negro cabins are in  
 places scarcely above  
 level of water.  
 At Laton some of  
 hill houses are  
 on posts.

A low cut at Laton  
 shows red top dressing &  
 something grayer below.  
 Doesn't look quite like  
 loess.

And stop LEXA. Same.  
 Flooded timber in sight.  
 At Lagrange a higher  
 terrace appears, but  
 to west side low, largely  
 cotton & some corn (little)  
 Much cotton not picked.  
 Just beyond Lagrange the  
 hills, now again distinct, but  
 rather lower than before,  
 are seen to the west.

From there until near  
 Milledgeville the hills are  
 distinctly visible from E to W.

a little over a mile away.  
The RR runs on same  
kind of flat.

Mariano is located on  
the flat & vicinity is  
low. The hills are probably  
 $1\frac{1}{2}$  mi. to S.E.

Saw some nice walnut logs  
at depot. There is a  
small mill cutting logs.  
It is raining all the time  
& this of course explains  
I exaggerate the flooded  
swampy condition.

Lots of cotton at depot  
at Mariano, but  
at Helena there was  
much more.

Big platforms are built

at all the depots for  
cotton bales.

Beyond Mariano no  
hills are visible.

Felton is on a flat,  
with cotton all around.

Also some corn.

Crossed the river, much of border  
just beyond a stop and a  
saw all in lumber camp.  
Much unpicked cotton (large  
plantations), beyond (Hayden).  
Saw only a few  
trees in many places.

This was a little  
station - sounded like  
Cana, just before Hayden.  
But cotton etc. extends  
to Hayden.



There is a cotton gin at Haynes.  
No hills in sight.

There are also extensive corn-  
fields near Haynes, with  
dead pointed trees (pine big  
trees) in places.

Beyond Bonair (some  
distance) ridge again  
appears. Low, rounded  
knobs, timbered.

Soon comes close.

Reaches Forest City about a time  
(8<sup>30</sup> am) & I put up the  
Marion Hotel at depot (CRD & P.)

Went out E. along CRD top  
and examined cut & picked up  
living shells. Then took team  
& driver, and drove to Crow  
cr. near Madison. Rode also

Cut 1. along CRD & P. E. of  
Forest City - at least  $\frac{1}{3}$  mi long  
In deepest place about  
55 ft deep.

The upper, lower, is yellowish  
B - 8 ft deep, points  
vertically, & in one place  
in lower part some shales  
it has a few small shells.  
And below is the 1. white  
layers 2-4 ft. & some that  
reddish & whitish and  
dry more or less brown  
by indur.

on roads Northward, & saw  
almost everywhere red  
top dressing. Crowley's Ridge  
is here a series of rounded knobs  
& ridges, & was heavily timbered, some yet.



c Reddish + yellow  
mud

Yellow sand

a = yellowish brown  
b = chocolate layer  
c = mud

<sup>c</sup>  
Highest part



—





Photos Found by Jan 2-'07

✓ 17- Cut 1 - [unclear] [unclear]

✓ 18- " 1- looking E. in RR.

✓ 19- Cut 2



Red loam



White loam



Red pebbles

Galena

✓ 31- Cut 2 - [unclear] at extreme left.

✓ 32- E. end of highest part of cut 2

✓ 33- Looking for Brown [unclear] to fault.

✓ 34- Similar

✓ 35- [unclear] [unclear]

✓ 36- " "

✓ 37- " "

✓ 38- " "

✓ 39- [unclear] of back

Cut 2 is old gravel pit (RR)

It is at least 200 yds long.

Low at W. end & higher at E end.

For  $\frac{1}{3}$  of way from W. end, I

encounter [unclear] [unclear] red

[unclear] & white, [unclear] [unclear].

The line between them is [unclear]

The [unclear] [unclear] [unclear] from

ground the [unclear] [unclear] [unclear]

lighter yellow & [unclear]

No fossils.

The [unclear] [unclear] is [unclear]

& [unclear] [unclear] [unclear] [unclear].

It contains fragments of

shells only, & [unclear] [unclear]

pebbles. [unclear] [unclear] [unclear]

rows of [unclear] [unclear] [unclear]

more [unclear] [unclear] [unclear]

shows so only at W. part,  
where bank is lower.

In your photograph

Red brown = 4-5 / 100

Wh. Cores - 2-3 ft.

Value Below

Spreading in both white &  
yellow trees.

very highest point) <sup>a little</sup> less than  
1/2 way up & at base is basin  
by talus, but evidently is  
not thick as gravel is  
washed out a little below it.  
The line between yellow &  
white loam is here very  
sharp. (see sketch of it below)

The yellow limestone  
is fully 20 ft thick,  
with few nodules or beds,  
& is capped by 2-5 ft  
of reddish top dressing.





Cut 3 is a slope leading down to  
small creek. It is a narrow  
cut - 15 ft. deep or more.  
It shows white lean below, some of  
it with very many small nodules  
(small nodules) about 1  
or 5 ft. in diameter. Also  
nodules.

The yellow loess, change in color  
a little, is some, probably  
10 or 12 ft deep.

There are only fragments of shells  
(very few) evidently from  
white loess.

In one place between them  
there is a deep red loess with  
blue iron tubes. (See sample)  
The yellow appears only  
on lower slope. (Morrow)

The red layer with the later  
runs up into a uniform  
deep red upper part -  
6 or 8 ft thick.

On top of ridge generally  
The top red dressing  
appears.

Carried two baskets of  
exp. plates etc. & shipped  
by express.

Jan. 3 - 1907 Thurs.  
Rained all morning, &  
train was delayed until  
9<sup>30</sup> AM. - 3 hrs. later.

Madison is on E. side of ridge  
& from that on low  
lands with much timber.  
Standing water everywhere.  
Evidence of logging all along.  
Runs in to river.

In places cantrails &  
much evidence of logging.  
In logging valleys the  
corn fields are on low hills.  
Reached Memphis at noon, went  
over to Poplar str. Station of  
Ill. Cent., got lunch & took  
car for Raleigh Springs, 12 miles  
away (8" by pike). Rained all the  
time.



7 mi N. of Memphis

Raleigh Springs

deep section 100 ft. deep

Shale (red-brown)

Shale (red-brown) 45 ft.

Shale (red-brown) 6 ft.

This report, as shown in a number of cuts, but best in the one leading up hill to the right, are very much like most of those at Forest City.

The upper part (here) is red, sometimes light, rather fine, & I saw no fossils.

This changes quite abruptly (as much as at Forest City) into a chocolate-red layer here more prominent.

Below this shades into the gravel bed, the transition being light red.

The gravel is water worn, just like in cut 2, Forest City. Took sample of same.

There are many cuts & washouts on slope to right of road, but all having the same character. On way along car line I could see red top showing everywhere.

Left Memphis at 5 P.M. & reached Dyersburg at 8 P.M.

Put up at the Stearns Hotel, in evening wrote notes, etc., & made inquiries about clay exposures.

Jan. 4 - Friday

Went out S. on Zionsville & Dyersburg road 2 mi. to Capt Henry hill.

<sup>cut</sup> Length - to top of hill 170 feet  
Height - 45 ft + (about 1/2 cut)

On top of ridge the cut is about 6 ft deep.

For about 200 yds. further S.E. there are low cuts 3-6 ft. with red top, same as upper end of cut 1, & no fossils.

It is about 10 ft higher to highest part of ridge back. Fossils become less abundant. Took clay sample from top of cut dig another from fossiliferous part about halfway up.



In deepest place, on E. side the cut is about 20 ft. deep.

Fossils are scattered through it at least  $\frac{2}{3}$  of the way up. In the lower part there are irregular lime concretions, quite common in places.

There are small concretions etc. through it in this part.

Up toward top there are ~~some concretions~~ & blue

not tubes ~~and fossils~~

Photo 28 - shows cut 1, looking up hill.

Cut 2 is on <sup>same</sup> road S. & E., just

before crossing river.

4 mi. from Dyersburg.

It is fully 25 ft. deep in deepest

place & shows a blue lime zone

at base near S. end, the lower

part of it is red. Green with

blue tubes occasionally

nodules or shells.

Photo R. shows cut & timber

bottom layer, also timber



in places - lower part of road

the lower is lighter, or

yellow. Generally it

is quite white.

In middle & upper portion a

lamination parallel to surface

shows.

Cut 2

timber

timber

timber

timber

timber

timber

timber

timber

timber

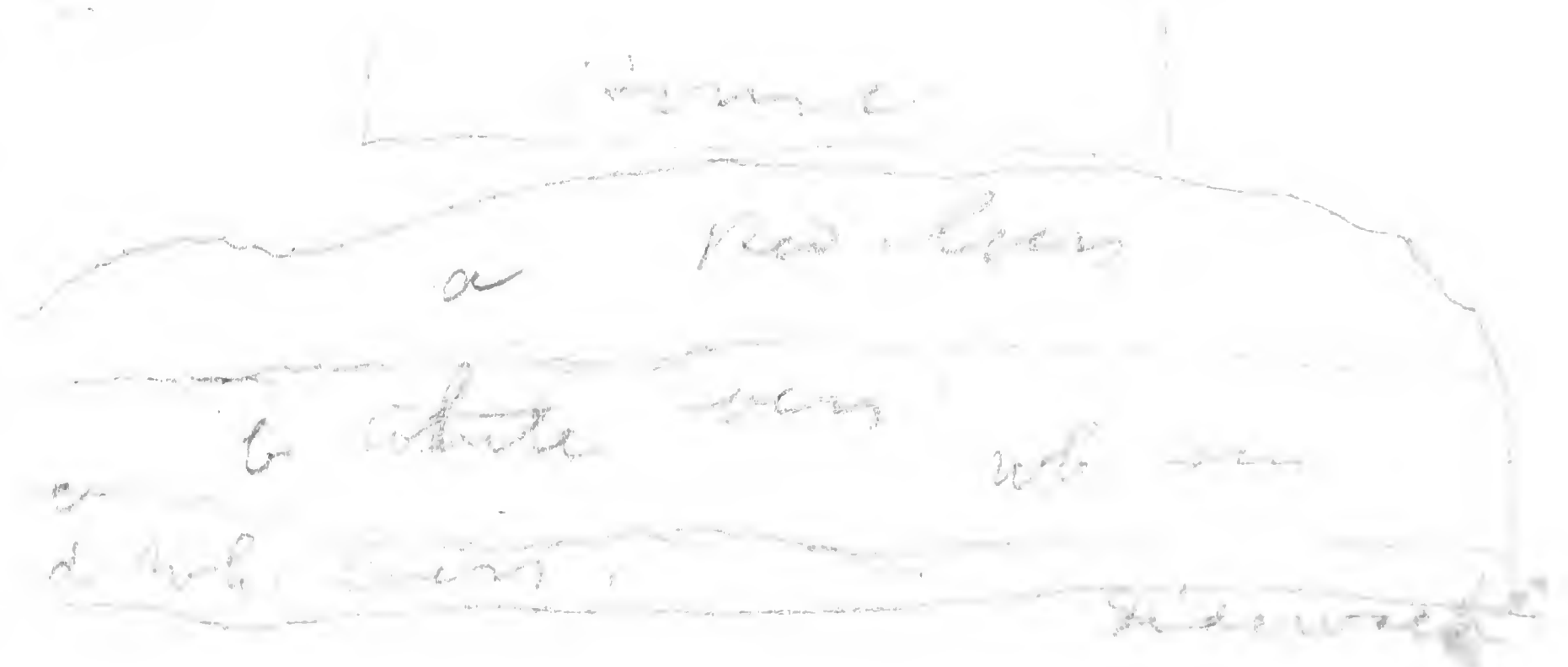
cut 2



photo 3 - Cut 1 - later

photo 4 - Potomac River  
photo 5 - Potomac River  
photo 6 - Potomac River  
photo 7 - Potomac River  
photo 8 - Potomac River  
photo 9 - Potomac River  
photo 10 - Potomac River  
photo 11 - Potomac River  
photo 12 - Potomac River  
photo 13 - Potomac River  
photo 14 - Potomac River  
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photo 94 - Potomac River  
photo 95 - Potomac River  
photo 96 - Potomac River  
photo 97 - Potomac River  
photo 98 - Potomac River  
photo 99 - Potomac River  
photo 100 - Potomac River

Cut 3 is opposite cotton gin on street leading up from farm depot. It is on N. side



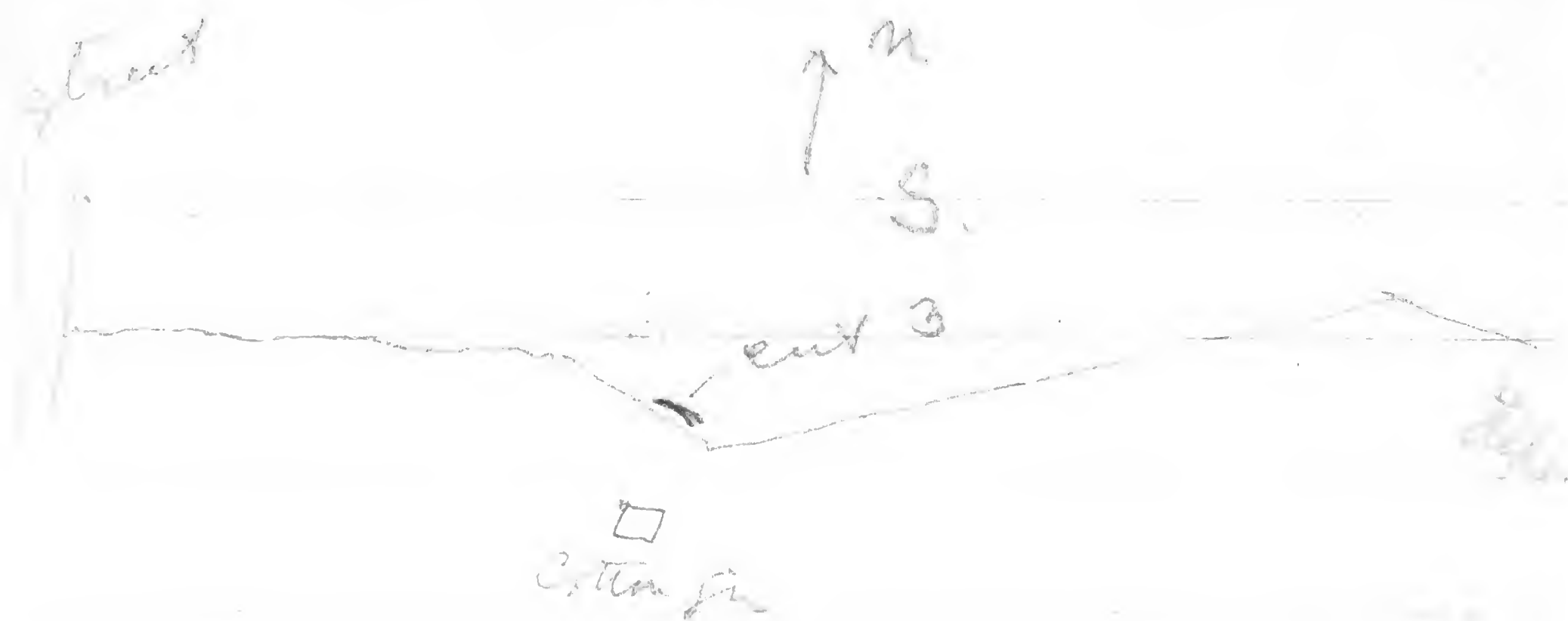
a - Red loam - like cut 1 - 2-4 ft.  
b - White loam - with iron & black spots  
c - Green loam - 2-3 in. strong  
d - White loam with vertical  
fossil tubes - iron

Took sample of b.

No fossils or nodules.  
This cut is rather low - not much above water bottom - upper terrace



74



✓ 27a + 27b Two rows of log loading  
with derricks on car.

✓ 28 A small derrick in the cut.

✓ 5 Log loading across road

✓ 6 " " " " " " " "

✓ A. Brickyard E. of Dyersburg Tenn

They run red clay from top  
from exposed surface to left.

✓ B. Cypress swamp along the river  
Small tree (red) with  
mistletoe

✓ C. Same tree with mistletoe

They call it a black gum  
This is the same as the white gum  
tree in sight of Dyersburg, Ark.

75

West end of cut 4 is about  
600 ft. from depot.  
Cut 4 is just E. of depot.

It shows nothing but red  
loam. Begin 900 ft. W.

of cut 5 (N. side). At 450 ft. W. of  
end is overline bridge was  
about 15 ft deep & 900 ft long.

Cut 5 is same as 4

This is about 400 ft. W. of cut 6.  
600 ft. W. of cut 6 is a wagon road crossing.

It is 8'00 ft. long & 5 ft. deep.  
A short open cut W. of this, just W. of S. side (cut 6).

Cut 6 - Same as 4 & 5

This is about 135 ft. cut 7

It is about 600 ft. long & about

10 ft. deep. All red loam.

800 ft. W. side. This runs further to  
Dyersburg. Red loam at base.

Cut 7 is a long cut &

the deepest. It is over

1500 ft. long & about 30

ft. deep.

It shows red loam above

showing with a stream (a)

This layer is about 15 ft thick.

In one place a white layer (c) shows below the & runs to be only 2 or 3 ft thick.

Then comes a layer (d) much (in most places the yellowish layer shades directly into it), & this in turn shades into a white hard pan (e).

This is just like other faults south.

(d) runs about 3-5 ft & about 1-5 ft. of (e) is exposed.

In places below (d) (red layer) there is a very sandy

layer full of iron concretions (c) is a narrow band, 1 or 2 ft wide, with only a short distance D - east? looking E

The young doctor who was out with me in the morning drove out to his father's farm <sup>west?</sup> north, & he says they 3 miles up, where there is a big hill. He saw a bank with shells in it, "just like the bank on Henry Hill."

Left Dyersville at 8 o'clock, and reached Gibbs (Paducah, Mo.) at 9:30 PM. Went to bed at the one hotel.



Jan. 5 Saturday

Was ~~arrived~~ in time for the  
6:34 Am. train on the Chattanooga,  
Nashville & St. L. Reached  
Hickman at 8 am

Hickman is located partly on  
cliffs & partly on high bluffs.  
Most of the business part of town  
is ~~low~~ down on the slope, the  
R.R. running in on low ground  
at foot of bluffs.

Hotel closed & put up at a  
boarding house, the Price Home.

Went E. along R.R.  $\frac{1}{4}$  mi  
from depot began bluffs  
in which I examined Fossils  
& got large numbers of  
fossils.

3rd barometer on level of track at depot  
at 100 ft. River at high  
water is about 9 ft lower.

2nd is an irregular exposure  
about 80 ft above R.R.  
track <sup>at base</sup> of yellow loess, gray  
whiter below.

It is capped above with  
thin red loess, 1-3 ft.

The red loess is sparingly  
fossiliferous (this applies to <sup>only</sup> W. end)  
The above applies to a hill within  
at W. end. The main out shows  
a loess of light yellow, tendency  
to white, with red top dressing,  
very fossiliferous.

This is not so thick as early.  
Few bone tubules - small.





Cut 3 is similar to cut 1, but shows less bumping. The loam below becomes almost white (see sample) & grows redder upward.

Tables obscure base, nothing but loam visible in half.

Cut 4 is like 3. It has just as many *Papae* etc as 1 + 3, but I picked up fewer.

Cut 5 is a similar but smaller cut. Same. Has fewer small shells & more *Papae* etc.

Cut 6 - Similar

~~There are other small~~

cuts in this crescent

Photo H - Looking E from E.

end of cut 4

Photo I Looking west (S of E) at cut 4.

Cut 7 - Similar to 5

" 8. " " 5, 6, 7.

Look only *Caryacanthus* from cut 5, 6, 7, + 8. ~~at the base~~  
~~go to the base of the~~  
~~shells.~~

All the cuts from the E. end of no. 4 on show at base, in washes,

a red mud below loess,  
 then a few feet of  
 gravel, & then the  
 bulk of bluff made  
 up of white mud,  
 in places as hard  
 & rock, & same as  
 at Ft. Adams,

The hill rises at least  
 150 ft. above RR, which  
 is 8-10 ft. above high water.  
 There is a shelf or terrace  
 below the loess, - just  
 about gravel layer,  
 which extends from cut 2  
 to cut 8. It is about  
 65 to 75 ft. above RR.  
 and 25-30 ft. above loess is

exposed in cuts, but hill  
 rises still more,



Jan. 6 Sun.

Arrived somewhere about  
Pineville, Del.

The loess between this  
and Hickman, looks  
red, or reddish, just  
like at Hickman &  
at one point I could  
see the heavy red much  
below. This was some  
distance below Belleville, Del.  
Between Belleville & East  
St. Louis a yellow loess  
(but still with red suffusing)  
appears in several cuts.  
Bluffs facing on the  
broad valley are low &  
rounded, but show loess.

Reached St. Louis at about  
8<sup>30</sup> AM, an hour late  
(7<sup>20</sup>)  
Lectures in evening.

Jan. 7 Mon.

Left St. Louis Monday, Jan. 7  
at 2<sup>55</sup> PM.

N. from St. Louis

Just before Larimore - 2 or 3 cuts - <sup>no fossils?</sup>  
some of the loess yellow - redder above  
beyond Larimore several cuts of redder loess.

At St. Belleville, just before  
river, I could see a distinct red  
layer, then reddish loess &  
finally yellow loess. In another  
cut a distinct gray very  
appears just above red layer.  
The best yellow contains here.  
Where bluffs again come close to RR, ~~just~~  
are reaching folgy red layer shown  
above the rock. Beyond folgy  
rock bluffs high. (See p. 93)



Box 9

29, 30 - Watchtower - Bush 1 - p. 67

XX " p. 67

27, 28 - " p. 73

29, 30 - " p. 73

31, 32 - " p. 74

33, 34 - " p. 74

35, 36 - Hotel - Ft. Adams - p. 81-I

37, 38 - Blackhorse hill from lower plateau p. 81-I

39, 40 - Bluff - Ft. Adams - p. 85-I

41, 42 - " (family) at landing - Ft. Adams - p. 87-I

43, 44 - Liquidambar - beach - Ft. Adams - p. 84-I

45, 46 - " - Ft. Adams - p. 84-I

47, 48 - Big magnolia - Ft. Adams - p. 83-I

49, 50 - Liquidambar & Honey Locust " p. 83-I

51, 52 - Bark below 60-95 ft. below Blackhorse hill p. 81-I

53, 54 - Across Miss. Lagoon - Ft. Adams - p. 82-I

Box 10 all Eastern

1. Palmetto - Ft. Adams - p. 81-I

2. Looking up bluff from Blackhorse hill p. 81-I

3. Looking inward from Blackhorse hill p. 81-I

4. " over Ft. Adams - p. 81-I

5. = 12 box 9. Bluff above landing Ft. Adams p. 91-I

6. Slope of Blackhorse hill - Adams - p. 83-I

7. Bank of big magnolia - Ft. Adams - p. 83-I

8. Residence - too many magnolias - Victory p. 13-I

9. Oxen hauling cotton - Ft. Adams " 13-II

10. Cotton bales at landing - Ft. Adams

11. Waiting for the boat - Ft. Adams

12. Gull with Guts - landing Ft. Adams - p. 92-I

13. Spoiled " "



## Box 11.

East { 33 Confid. contains Vichsburg p. 13-II

34 Looking across river - p. 13-II

15 } yuccas in print - Vichsburg p. 13

5 Looking N. from top of cut 7 - Vichsburg p. 13

6 yuccas - " " "

(see p. 74)

17 Cut 7 looking up hill - Vichsburg - p. 13-II

18 " " - upper part " p. 13-II

19 } mapping & house Vichsburg  
 20 } E. of E. X  
 21 } Forest City p. 58-II  
 22 } Vichsburg - looks N. in cherry -

C<sup>v</sup> = R. box 12

D<sup>v</sup> = S. box 12 but clear

27<sup>a</sup> Look N. from top of cut 2 - Helena p. 29-II

27<sup>b</sup> - W. of N. " " " " p. 29-II

15<sup>c</sup> cut 2 looking W. of S. - Helena II-29

14<sup>d</sup> " " - X - " II 29

## Box 12

27<sup>a</sup> - Town cut 2 from cut 6 - Helena p. 29-II

28<sup>a</sup> - Cut 6, E. side - " p. 29-II

R - Band of skulls, cut 5 - " p. 29-II

9<sup>b</sup> - " " " " " p. 29-II

7<sup>c</sup> - Looking S. towards cut 2 Helena p. 29-II

8<sup>d</sup> - " up York St. " p. 29-II

9<sup>e</sup> - cut 7 - side view - Helena - p. 29-II

10<sup>f</sup> - Cut 9 - " p. 29-II

Read down from here  
 9<sup>g</sup> waiting for iron ore to fall - Forest City - p. 58-II

5<sup>h</sup> - Similar

6<sup>i</sup> - cut 2 - Forest City p. 58-II

7<sup>j</sup> - " 2 - E. W. " p. 58-II

8<sup>k</sup> } E. W. of cut 2 " - 2 locs

9<sup>l</sup> } " " "

7<sup>m</sup> - cut 1 - Forest City - p. 58-II

8<sup>n</sup> - " - looking E. " p. 58-II







Expense account

Dec. 29-1906	Lunch, Hatchery, RR. & Vicksburg	2.30	2.30
	RR. Harmon to Cannonburg	40	.40
	Lunch, Return to Harmon	20	.60
	Vicksburg; cards, lunch, dray	50 30 20	1.00
Dec. 30	Hotel Piazza Dray, Porter	2.50 20 20	2.90
	Storage baggage, RR. ticket to Helena	2.50 5.25	5.25
Dec. 31	Two lunches, Helena, Dray	60 25	.85
	Press, cards, stamps	30 30 25	.85
	Lunch	25	.25
Jan. 1-1907	Lunch, Express basket	10 1.40 10	1.60
Jan. 2	Hotel (New Pacific)	3.25	3.25
	Coal, Porter	25 10	.35
	RR. fare to Forest City		1.22
Forest City	Dray, Livery, lunch	25 2.00 30	2.55
	Sacks, oil, clean basket	25 25 25 5	.80
Jan. 3	Hotel (Marion)		1.50
	RR. fare to Memphis		1.50
			27.24

	Lunch	30	
	Car fare	30	
	Lunch	25	.85
	Cards	50	
	RR. fare to Dyersburg	2.25	2.75
	Storage at Memphis		.40
Jan. 4	Dyersburg, Tenn. Livery	2.00	2.00
	Hotel, Dray	2.25	2.25
	Cards, Lunch	25 10	.35
	RR. fare to Fulton		.35
Jan. 5	Hotel at Fulton		.50
	RR. fare to Hickman		.45
	Hickman; Porter, Hotel	15 1.00	1.15
	Clothes, press, cards, lunch	1.10 25 .05	1.30
	Basket, Haircut & bath	10 60	.70
	RR. fare to St. Louis		6.85
Jan. 6	Cards, Otto	35 25	.60
Jan. 7	RR. fare to W. Lib. paper	8.15 5	8.20
Jan. 8	Lunch, Dray - RR. fare from city	10 .45	.55
Jan. 9	Dray	50	.50
	Miss Myrtle Mc Curry, Photos		30.45
	Dyersburg, Tenn. 13x14		
		26.29	
		9.15	



(See p. 89)

It was dark before we  
reached Quincy, & I made  
no observations. Below  
Hannibal nearly all the  
marks in evidence,  
retaining not a promising  
field for loess below  
Hannibal until Ft.  
Bellevue is reached.  
Rain let up.

Rev. Victor Varick

834 N. Washington St.

St. Louis

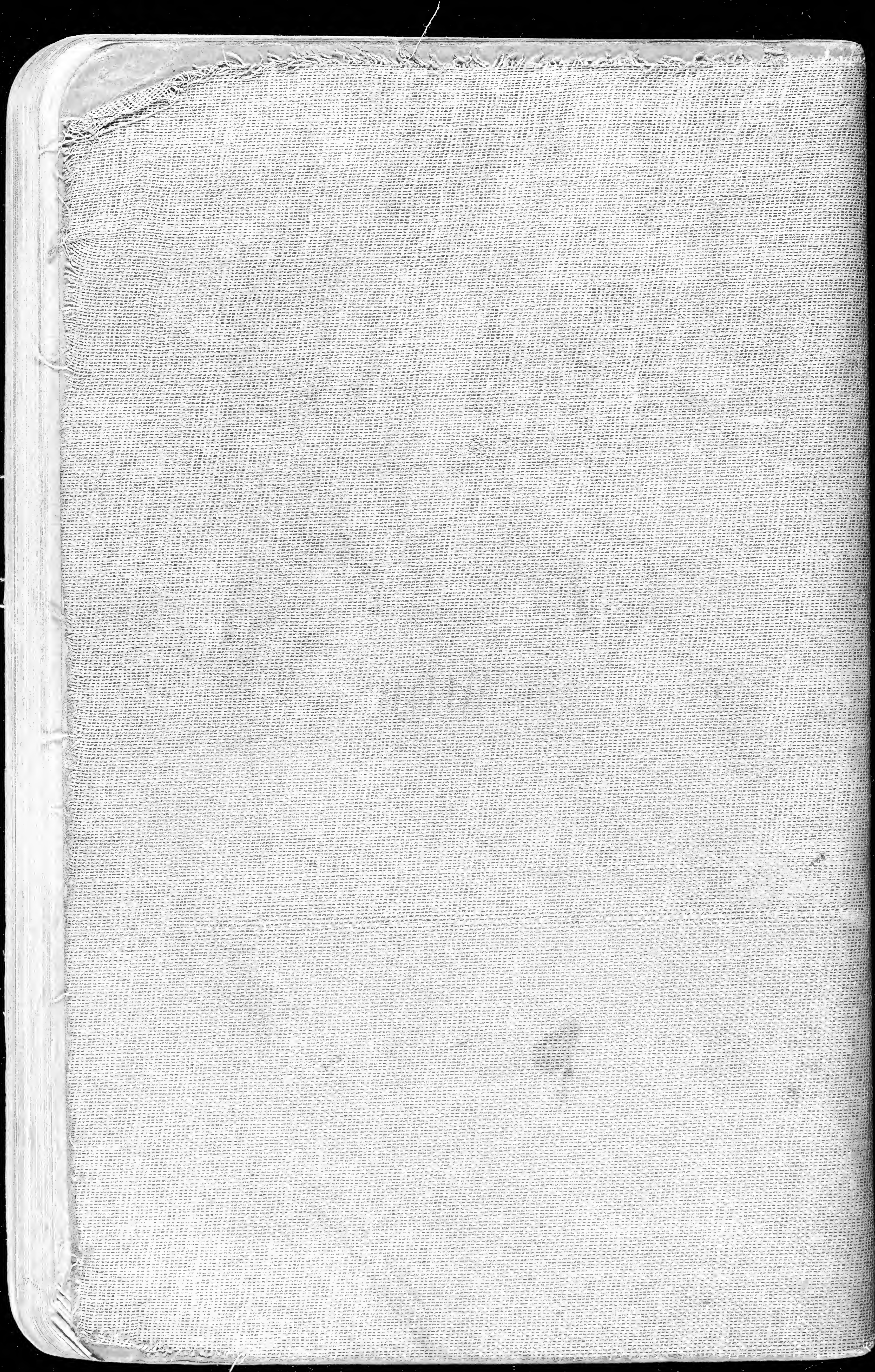
Mo.

Dear Sir,

Hot. Home

Avoid draft. Arrange  
pipes so that every run of pipes  
can be separately cut off.  
Combine pipes from general  
plant, and small plant.  
Arrange beams so that it is  
easy to cut off parts.  
Avoid the enormous quantity  
of cement —







- H. Mesodon profunda  
 H. " exolata  
 H. " elevata  
 H. Helicodiscus lineatus  
 H. Patula alternata  
 H. Triodopsis palliata  
 H. Stenotrema monodon  
 H. " hirsutum  
 H. Punctum minutissimum  
 H. Zonites arboreus  
 H. " minusculus (?)  
 H. Vertigo gouldi  
 Strobila labyrinthica  
 H. ? Puppa contracta  
 H. Succinea obliqua  
 H. Selenites concava  
 Gyraulus parvus

Lee co - add.

- H. Mesodon albolabris  
 H. " multilineata  
 Triodopsis inflecta

Madison add.

Mesodon Thyroidea

- H. Pomatiopsis lapidaria  
 H. Cornulus fulvus  
 H. Patula perspectiva

D. of Forest City

- H. Puppa pentodon  
 F.C. Ciarella subcylindrica

My additions.

- H. Zonites viridulus  
 H. " multidentata  
 H. Patula striatella  
 H. Succinea avara  
 H. Zonites lasmodon (?)  
 H. Carychium  
 H. Zonites capnodes  
 H. " indentata  
 H. " ligens  
 H. Mesodon clausa (?)  
 H. Helicina orbiculata  
 H. Zephyradium edentulum  
 H. Puppa corticaria  
 Patula solitaria  
 H. Large egg  
 H. Small egg



*Helena, Ark.*

# PLAT

SHOWING LOCATION OF PROPERTY IN QUESTION.

*St. Francis Prop.*

*Back*  
*College*  
*Poplar*  
*Beech*  
*Columbia*  
*Franklin*  
*Pecan*  
*Walnut*  
*Cherry*  
*Ohio*  
*Water*

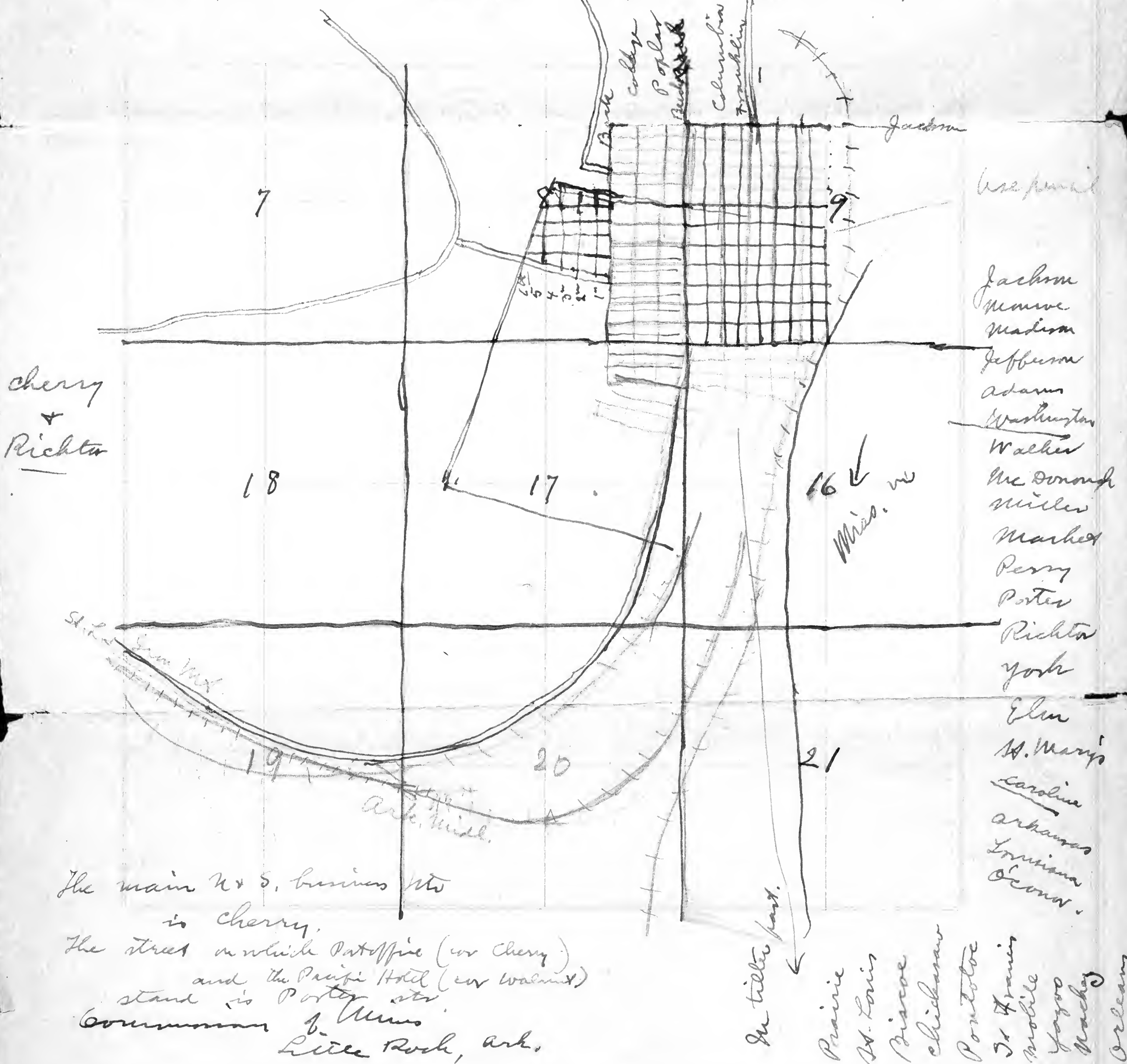
*Prop.*  
*map*

SECTION

TOWNSHIP

*2. 5-*

RANGE *5-E 5d*



The main N & S. business str  
 is Cherry.  
 The street on which Postoffice (on Cherry)  
 and the Pacific Hotel (on Walnut)  
 stand is Porter str.  
 Courthouse of Miss.  
 Little Rock, Ark.